



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,712	02/06/2002	Leon W.M.M. Terstappen	1477-P01688US2	9650

110 7590 03/18/2005

DANN, DORFMAN, HERRELL & SKILLMAN
1601 MARKET STREET
SUITE 2400
PHILADELPHIA, PA 19103-2307

EXAMINER

DO, PENSEE T

ART UNIT

PAPER NUMBER

1641

DATE MAILED: 03/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/068,712

Applicant(s)

TERSTAPPEN ET AL.

Examiner

Pensee T. Do

Art Unit

1641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 4 and 18-25 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-8 is/are allowed.
- 6) ☒ Claim(s) 1-3,9 and 11 is/are rejected.
- 7) ☒ Claim(s) 10 and 12-17 is/are objected to.
- 8) ☒ Claim(s) 1-25 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/22/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election of group I, claims 1-3, 5-17 in the reply filed on January 13, 2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 3 and 9, 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 is confusing in reciting "the container has one size to facilitate test reactions...and a second size in the annular space to facilitate collection of the magnetic responsive particles..". How does a container have two sizes? unless there are two different containers. See also claim 11 for the same problem.

Claims 3 and 9, last paragraph, are vague in reciting "said plunger having outside dimension similar to but less than the inside dimensions of said interior surface". This phrase is confusing because if the dimension of the plunger is similar to the interior surface, how would its dimension be less than the inside of the interior surface? If

Art Unit: 1641

applicants refer to the outside dimension as the "configuration" of the plunger, please clarify.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liberti et al. (US 5,466,574) further in view Kilcoin et al. (US 6,190,619).

Liberti teaches a magnetic separator for generating high gradient magnetic field within a non-magnetic test medium to separate magnetically responsive particles from the test medium. The magnetic separator comprises magnetic means for generating a high gradient magnetic field in a gap or receptacle into which at least one vessel containing a test medium may be placed. The magnetic field gradient generating means is disposed outside the container and provides an "open" field gradient inside the container, wherein the magnetic field is stronger in the test medium along the internal wall surface of the container than it is in the test medium most distant from the wall. Depending upon the way the test medium being separated, suitable containers include test tubes, microtiter wells, capillary tubes or other non-magnetic cylindrical walled vessels defining a chamber for performing the desired separation. The containers also

Art Unit: 1641

have one or more non-magnetic baffles spaced apart within the container between two ends. The baffles are dimensioned to restrict the cross-sectional area of the passageway in which the test medium flows through the container to a region surrounding the axis. The baffles are inclined radially downwardly along the direction of flow, to guide toward the wall any magnetically responsive particles coming into contact therewith. The conduit has laterally spaced apart outlet means disposed at the end opposite the inlet. The magnets are arranged so as to define a gap or yoke which serves to enhance the field strength produced by the apparatus. The magnetic field gradient produced by this "multipole" arrangement is characterized by a very strong magnetic field near the edge of the receptacle and virtually no magnetic field at the center of the receptacle. The centers of pole faces are spaced apart by a distance not less than the distance between the faces and said internal surface (see col. 4, line 65-col. 6, line 33; example 1).

However, Liberti fails to disclose a plunger operable to be displaced into said container to confront said interior surface and spaced therefrom to form an annular space through which said test medium may pass.

Kilcoin teaches an apparatus for synthesizing chemical compounds using a plurality of reaction vessels. The apparatus includes suitable agitators, such as plungers, stir bars, balls, beads, columns, disks or the like within the reaction vessels under an external force, e.g. a magnet (see col. 6, lines 54-58). The reaction vessels can be oriented in a circular fashion, with each cassette having a concentric annular shape. (see col. 6, lines 30-33). Regarding the outside dimension of the plunger being

Art Unit: 1641

similar to but less than the inside dimensions of the interior surface to provide elongated annular space along the length of the interior surface, since the plunger is within the vessel, its dimension must be less than the dimension of the interior surface of the reaction vessel.

Since Kilcoin teaches a plunger displaced in a reaction vessel for stirring or agitating or regulating the flow of the content in the sample with the use of a external force such as a magnetic force and Liberti teaches a device which has a reaction vessel or vessels arranged in a circular configuration and these vessels are surrounded by magnets, it would have been obvious to one of ordinary skill in the art to displace the plunger of Kilcoin in the container of Liberti for regulating the flow of the test medium in the reaction vessels of Liberti so that magnetic particles can adhere to the interior surface more rapidly.

Remarks

Claims 5-17 are free of prior arts.

The prior arts fail to teach a magnetic separator with a non-magnetic plunger.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pensee T. Do whose telephone number is 571-272-0819. The examiner can normally be reached on Monday-Friday, 7:00-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on 571-272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1641

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Pensee T. Do
Patent Examiner
March 10, 2005



CHRISTOPHER L. CHIN
PRIMARY EXAMINER
GROUP ~~1800~~ 1641
3/14/05